

AMENDMENT NO. 2 AUGUST 2019
TO
IS 2508 : 2016 POLYETHYLENE FILMS AND SHEETS — SPECIFICATION

(Third Revision)

(Page 1, *clause 1.1*) — Insert the following at the end of clause:

‘and Relief shelter and Disaster Management.’

(Page 1, *clause 2*) — Substitute ‘IS 16738 : 2018 Positive list of constituents for polypropylene, polyethylene and their copolymers for its safe use in contact with foodstuffs and pharmaceuticals’ *for* ‘IS 10141 : 2001 Positive list of constituents of polyethylene use in contact with foodstuffs, pharmaceuticals and drinking water’.

(Page 1, *clause 3*) — Substitute the following for the existing clause:

Based on the thickness, width and density, the polyethylene film/ sheet shall be of the following types:

- a) *Type I (LDPE/LLDPE)* — Nominal thickness from 100 to 450 µm and width from 4 to 15 m.
- b) *Type II (HDPE)* — Nominal thickness from 100 to 450 µm and width from 4 to 9 m.
- c) *Type III (LDPE/LLDPE)* — Nominal thickness from 500 to 1500 µm and width from 5 to 9 m.
- d) *Type IV (HDPE)* — Nominal thickness from 500 to 1500 µm and width from 5 to 9 m.’

(Page 2, *clause 4.1.2, line 3*) — Substitute ‘0.10 to 1.2 g/10 min’ *for* ‘0.10 to 2.0 g/10 min’.

(Page 2, *clause 4.1.4, line 3*) — Substitute ‘0.10 to 1.2 g/10 min’ *for* ‘0.10 to 1.0 g/10 min’.

(Page 2, *clause 4.2.4.1.1, line 2*) — Insert ‘α’ *before* olefin.

[Page 2, *clause 4.2.4.1.4 (a)*] — Substitute ‘1.0 to 2.0 g/cc’ *for* ‘1.5 to 2.0 g/ml’.

[Page 2, *clause 4.2.4.1.4 (e)*] — Substitute ‘≥ 105’ *for* ‘Min – 115’.

[Page 3, *clause 5.2.2, value under ‘Tolerance, Percent’ (see also Amendment No. 1)*] —

Substitute ‘ $\left. \begin{array}{c} -10 \\ +20 \end{array} \right\}$ ’ *for* ‘-10’.

Amendment No. 2 to IS 2508 : 2016

[Page 4, Table 3 (see also Amendment No. 1)] — Substitute the following table for the existing:

‘Table 3 Requirements for Type III Polyethylene (PE) Film/ Sheet
(Clause 8.1)

Sl No.	Characteristic	Thickness of Film/ Sheet, μm				Method of Test, Ref to	
		500	750	1 000	1 500	IS No. (7)	Annex (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	Tensile properties ¹⁾ , <i>Min</i> Average					IS 13360 (Part 5/Sec 1) and IS 13360 (Part 5/Sec 3) Test conditions – Specimen type 5 and test speed 51 mm/min	–
	a) Break strength, N/mm	13	20	27	40		
	b) Break elongation, percent	800	800	800	800		
ii)	Tear resistance, <i>Min</i> Average, N	50	70	100	150	–	B
iii)	Puncture resistance, <i>Min</i> Average, N	120	190	250	370	–	C

¹⁾ Machine direction (MD) and cross-machine direction (TD) average values should be on the basis of 5 test specimens each direction. Break elongation is calculated using a gauge length of 50 mm.

[Page 5, Table 4 (see also Amendment No. 1)] — Substitute the following table for the existing:

‘Table 4 Requirements for Type IV Polyethylene (PE) Film/Sheet
(Clause 9.1)

Sl No.	Characteristic	Thickness of Film/ Sheet, μm				Method of Test, Ref to	
		500	750	1 000	1 500	IS No. (7)	Annex (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	Tensile properties ¹⁾ , <i>Min</i> Average					IS 13360 (Part 5/Sec 1) and IS 13360 (Part 5/Sec 3) Test conditions - Specimen type 5 and test speed 51 mm/min	–
	a) Yield strength, N/ mm	7	11	15	22		
	b) Break strength, N/ mm	13	20	27	40		–
	c) Yield elongation, percent	12	12	12	12		
	d) Break elongation, percent	700	700	700	700		
ii)	Tear resistance, <i>Min</i> Average, N	62	93	125	187	–	B
iii)	Puncture resistance, <i>Min</i> Average, N	160	240	320	480	–	C

¹⁾ Machine direction (MD) and cross-machine direction (TD) average values should be on the basis of 5 test specimens each direction. Yield elongation is calculated using a gauge length of 33 mm. Break elongation is calculated using a gauge length of 50 mm.